REMARKS

Please reconsider in view of the above amendments and the following remarks. Applicants thank the Examiner for carefully considering this application, and indicating that the drawings filed on December 31, 2003 are accepted.

Objection to the Specification

The Office Action Summary in the Office Action dated October 2, 2006, appears to have an erroneous indication that the Specification is objected to by the Examiner. Specifically, the Detailed Action does not mention the objection to the Specification. Accordingly, withdrawal of this objection is respectfully requested.

Disposition of Claims

Claims 1-20 are pending in the application. By way of this reply, claims 6 and 13 are canceled. Claims 1, 8, 15, and 20 are independent. The remaining claims depend, directly or indirectly, from claims 1, 8, and 15. New claims 21 and 22 are added.

Claim Amendments

Claims 1, 4, 8, 11, 15, 18, and 20 are amended by way of this reply. Applicants thank the Examiner for the suggested corrections. The suggested corrections have been incorporated into the amended claims 1, 8, 15, and 20. Specifically, claim 1 is amended to include "verifying one selected from a group consisting of the optimized image and the second simulation image." Claims 8 and 20 are amended to include similar limitations. Claims 4, 11, 15, and 18 are amended to clarify antecedent basis. No new matter has been added by way of these amendments. Further, new claims 21 and 22 are added. No new matter has been added by way

of the new claims, as support for the new claims can be found, for example, in paragraph [0037] of the specification.

Claim Objections

Claims 13 and 15 are objected to because of the lack of antecedent basis. Claim 13 is canceled. Thus, the objection is now moot with respect to claim 13. Claim 15 is objected to because the term "second simulation image" lacks antecedent basis. Claim 15 is amended to refer to the "first simulation image." Accordingly, withdrawal of this objection is respectfully requested.

Rejections under 35 U.S.C. §101

Claims 1, 8, and 20 are rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Applicants thank the Examiner for suggesting amendments to obviate the §101 rejection. The suggestions have been incorporated into claims 1, 8, and 20. Accordingly, withdrawal of this rejection is respectfully requested. No new matter has been added by any of the aforementioned amendments.

Rejections under 35 U.S.C. §103

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,510,541 ("Fujiwara") and U.S. Patent 6,009,256 ("Tseng"). Claims 6 and 13 are canceled. Accordingly the rejection is now moot with respect to claims 6 and 13. To the extent that this rejection applies to the remaining claims, as amended, the rejection is respectfully traversed.

"To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the

knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." (MPEP §2143).

Applicants respectfully assert that the references, when combined, fail to teach or suggest all the claim limitations of amended independent claims 1, 8, 15, and 20. Independent claim 1, as amended, requires, in part, (i) removing nodes from the first simulation image to produce an optimized image and an optimized nodes image; (ii) simulating the optimized image; (iii) invoking the optimized nodes image if debugging is selected; (iv) reconstructing a second simulation image using the optimized image and the optimized nodes image; (v) simulating the second simulation image to gather simulation data; (vi) debugging the first simulation image using simulation data; and (vii) verifying one selected from a group consisting of the optimized image and the second simulation image.

The Examiner asserts that Fujiwara teaches removing nodes from the first simulation image to produce an optimized image and an optimized nodes image; invoking the optimized nodes image; and reconstructing a second simulation image using the optimized image and the optimized nodes image (*see* Office Action dated October 2, 2006 at page 4). In making these assertions, the Examiner is either mischaracterizing the teachings of Fujiwara or reading the claims overly broadly, both of which are wholly improper.

Specifically, Fujiwara does not disclose producing an optimized nodes image, as recited in claim 1 of the instant application. The Examiner erroneously equates the "optimization model generation section," as shown in Figure 29 of Fujiwara, with producing an optimized image *and an optimized nodes image* (*see* Office Action dated October 2, 2006 at page 4). The

optimization model generation section disclosed in Fujiwara, is directed to a circuit conversion that simply removes the unused portion of a circuit, to admittedly, generate an optimized image (*see* Fujiwara, Fig. 29, and col. 18, line 63 to col. 19, line 9). However, the optimization model generation section does *not* additionally generate an optimized nodes image (*i.e.* an image based on at least a portion of the removed circuit). Generating a single optimized image by removal of an unused portion is not equivalent to generating an optimized image *and* an optimized nodes image, as explicitly recited in independent claim 1. In fact, a thorough review of Fujiwara, reveals that Fujiwara is completely silent with respect to *any* sort of optimized nodes image, whatsoever.

Further, independent claim 1 recites, in part, "invoking the optimized nodes image if debugging is selected...reconstructing a second simulation image using the optimized image and the optimized nodes image." As discussed above, Fujiwara does not expressly or inherently describe an optimized nodes image. Accordingly, Fujiwara cannot possibly describe invoking the optimized nodes image or reconstructing a second simulation image using the optimized image and the optimized nodes image.

Moreover, even assuming *arguendo* that Fujiwara describes an optimized nodes image, Fujiwara does not expressly or inherently describe invoking the optimized nodes image or reconstructing a second simulation image using the optimized image and the optimized nodes image. The Examiner erroneously equates these limitations with deleting a module, and instead incorporating a circuit that returns an error when the module is accessed (*see* Office Action dated October 2, 2006 at page 4). However, deleting a module is *not* equivalent to invoking the optimized nodes image when debugging is selected. Further, a circuit that simply returns an error (*see* Fujiwara, col. 19, lines 20-23) is not equivalent to an optimized nodes image.

Accordingly, incorporating a circuit that simply returns an error when accessed *cannot* be construed to disclose reconstructing a second simulation image using an optimized image and an optimized nodes image.

Applicants assert that Tseng does not teach what Fujiwara lacks, as evidenced by the fact that the Examiner relies on Fujiwara solely for the purpose of disclosing removing nodes from the first simulation image to produce an optimized image and an optimized nodes image; invoking the optimized nodes image; and reconstructing a second simulation image using the optimized image and the optimized nodes image (*see* Office Action dated October 2, 2006 at page 4).

In view of the above, amended independent claim 1 is patentable over the cited references. Amended independent claims 8, 15, and 20 include at least the same patentable limitations as amended independent claim 1 and thus, are also patentable over the cited references. Finally, all dependant claims are patentable over the cited references for at least the same reasons as independent claims 1, 8, and 15. Accordingly, withdrawal of this rejection is respectfully requested.
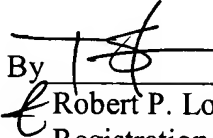
New Claims

New claims 21 and 22 depend directly, from amended independent claims 1 and 8, respectively, and are patentable for at least the same reasons. Accordingly, favorable consideration of the new claims is requested.

Conclusion

Applicants believe this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 03226/356001; SUN040029).

Dated: January 3, 2007   Respectfully submitted,

By _____ #45,079

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